

CLAIMS:

1. A method of producing a laminated composite article, said method comprising the steps of:

5 (a) forming a layered structure comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer disposed on each of said sides, and a veneer layer disposed on at least one of said sheet layers; and,

10 (b) subjecting said structure to elevated temperature and pressure in a pressing apparatus for a time sufficient to cure said resin at said temperature and pressure.

15 2. The method of claim 1, wherein said pressing apparatus comprises a first platen and a second platen, said first platen having a temperature of about 350°F to about 405°F, and said second platen having a temperature of about 320°F to about 350°F.

20 3. The method of claim 1, wherein said pressing apparatus subjects the structure of step (a) to a pressure of about 325 psi to about 425 psi.

25 4. The method of claim 1, wherein said time is about one minute or less.

5. The method of claim 1, wherein said time is about 30 seconds to about 40 seconds.

30 6. The method of claim 1, wherein said resin of said resin-saturated sheet is a material comprising melamine.

35 7. The method of claim 6, wherein said resin of said resin-saturated sheet is a material comprising about 98 wt.% melamine.

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8. The method of claim 6, wherein said resin of said resin-saturated sheet is a material comprising a melamine/urea blend.

5 9. The method of claim 8, wherein said resin of said resin-saturated sheet is a material comprising about 60 wt.% of melamine and about 40 wt.% of urea.

10 10. The method of claim 6, wherein said resin comprises about 45 wt.% to about 65 wt.% of the resin-saturated sheet.

15 11. The method of claim 1, wherein said sheet of said resin-saturated sheet is an alpha cellulose sheet having a basis weight of about 40 pounds per ream to about 100 pounds per ream.

20 12. The method of claim 1, wherein said rigid substrate layer is a material selected from the group consisting of particleboard, low-density fiberboard, medium-density fiberboard, and high-density fiberboard.

25 13. The method of claim 1, wherein said veneer layer comprises a wood-like material having a moisture content of about 7 wt.% to about 10 wt.% based on the weight of the veneer.

30 14. A laminated composite wood product made by the method of claim 1.

15. A method of producing a composite article, comprising the steps of:

(a) providing a rigid substrate layer having two substantially flat sides;

35 (b) providing, on each of said sides of the substrate layer, a sheet layer that is substantially saturated with a thermosetting resin;

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(c) providing, on at least one of said sheet layers, a veneer layer;

(d) providing the product of step (c) in a pressing apparatus; and

5 (e) subjecting the product of step (d) to elevated heat and pressure in said pressing apparatus for a period sufficient to cure said resin at said temperature and pressure.

10 16. The method of claim 15, wherein:

the product of step (c) is provided in a pressing apparatus including a first platen and a second platen; and,

15 in step (e) said first platen has an elevated temperature in the range of about 350°F to about 405°F, and said second platen has an elevated temperature in the range of about 320°F to about 350°F.

20 *Sub B3* 17. A laminated composite wood product comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer on each of said substantially flat sides, and a veneer layer on at least one of said sheet layers.

25 18. The product of claim 17, wherein said resin of said resin-saturated sheet is a material comprising melamine.

30 19. The product of claim 18, wherein said resin of said resin-saturated sheet is a material comprising about 98 wt.% melamine.

35 20. The product of claim 18, wherein said resin of said resin-saturated sheet is a material comprising a melamine/urea blend.

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21. The product of claim 20, wherein said resin of said resin-saturated sheet is a material comprising about 60 wt.% of melamine and about 40 wt.% of urea.

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22. The product of claim 18, wherein said resin comprises about 45 wt.% to about 65 wt.% of the resin-saturated sheet.

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23. The product of claim 17, wherein said sheet of said resin-saturated sheet is an alpha cellulose sheet having a basis weight of about 40 pounds per ream to about 100 pounds per ream.

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24. The product of claim 17, wherein said rigid substrate layer is a material selected from the group consisting of particleboard, low-density fiberboard, medium-density fiberboard, and high-density fiberboard.

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25. The product of claim 17, wherein said veneer layer comprises a <sup>wood</sup>~~wood-like~~ material having a moisture content of about 7 wt.% to about 10 wt.% based on the weight of the veneer.

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